DOCUMENT RESUME

ED 300 112 PS 017 559

AUTHOR Chang, Agnes
TITLE The Relationship between the Learning of English and the Learning of a 'Second Language' in Pre-Schoolers.
PUB DATE Sep 86
NOTE 32p.; Paper presented at the IE-BVL Project Seminar (2nd, Singapore, September 1986).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Age Differences; Bilingual Education; Comparative Analysis; *Difficulty Level; *Ethnic Groups; Foreign Countries; *Language Acquisition; Malay; Mandarin Chinese; *Preschool Children; Preschool Education; *Second Language Learning; Tamil
IDENTIFIERS *Singapore

ABSTRACT

Are young children able to become competent in two languages simultaneously? In an attempt to answer this question, Singaporean Chinese, Malay, and Indian children of 3.5 through 6 years of age who attended six different types of preschool centers were grouped into age bands separated by an interval of 6 months and were given four English tests and two "second language" tests of Chinese (Mandarin), Malay, or Tamil. Language-related abilities assessed were auditory discrimination, concept of print, word knowledge, verbal fluency in English, and word knowledge and verbal fluency in the three second languages. Results are discussed in three sections comparing age and interval data, two contrasting types of preschool centers, and children in the three ethnic groups. Findings indicated that the younger preschoolers had difficulties in simultaneously learning English and a second language. Analysis of data from both private and nonprivate centers showed that the level of difficulty varied according to the degree of exposure to the languages and the socioeconomic background of the subjects. Though some indications of difficulty in the bilingual learning of English and Malay were found, they were weaker than those related to the simultaneous learning of Chinese and English. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED300112

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Agnes Chang
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ABSTRACT

THE RELATIONSHIP BETWEEN THE LEARNING OF ENGLISH AND THE LEARNING OF A 'SECOND LANGUAGE' IN PRE-SCHOOLERS

Agnes Chang
Institute of Education, Singapore

PS 017559

Introduction

A problem which both educators and parents is concerned with is. whether there is an optimal age to introduce a second language to a child. Studies have shown the positive aspects of early bilingualism, both for the ease with which it can be achieved and the superior level of attainment wnen compared with late bilingualism. However, documented cases of the negative consequences of early bilingualism do exist.

What Was The Study About?

In Singapore, children are introduced to an early bilingual education in their pre-school years. This study hopes to address an important issue in language learning. Are young children able to handle two languages competently?

How Was The Study Carried Out?

Chinese, Malay and Indian children between the ages 3½ and 6 plus took part in the study. Subjects were grouped into age bands with an interval of six months between them. These subjects were drawn from both private as well as non-private kindergartens. All the subjects were administered four English tests and two Second Language tests (Chinese, Malay or Tamil).

BEST COPY AVAILABLE

What Were The Findings?

The results showed that:

° the younger pre-schoolers had difficulties in handling the learning of English and that of a Second Language simultaneously;

° as the children matured and had longer exposure to the two languages, they were better able to handle the learning of the two languages;

° tne difficulty level of bilingual learning varied according to the degree of exposure to the two languages and the socio-economic background of the children;

° tnere were some indications of difficulty in the bilingual learning of English and Malay, but they were not as strong as tnose in the learning of Chinese and Malay.

THE RELATIONSHIP BETWEEN THE LEARNING OF ENGLISH AND THE LEARNING OF A 'SECOND LANGUAGE' IN PRE-SCHOOLERS*

Agnes Chang
Institute of Education, Singapore

A problem which both educators and parents is concerned with is whether there is an optimal age to introduce a second language to a child. Is it better to encourage bilingualism from as early an age as possible or to delay introducing the second language until the child has a firm grip of the first?

A considerable amount of research has been conducted into acquisition of more than one language by very young children (e.g. Ronjat, 1913; Leopold, 1939-49; Ruke-Dravina, 1967; Berman, 1979). Many studies have shown the positive aspects of early bilingualism, both for the ease with which it can be achieved and the superior level of attainment when compared with late bilingualism, particularly with respect to the acquisition of a flawless, native-like accent and intonation patterns in more than one language (Lenneberg, 1967; Doyle et al, 1977). However, documented cases of the negative consequences of early bilingualism do exist (Lebrun and Hasquin, 1971; Skutnabb-Kangas and Toukamaa, 1976).

According to Titone (1972), although two languages can be acquired from the very onset of language development, the optimal age for the

---

*This paper was presented in the Second IE-BVL Project Seminar, September 1986, Singapore.

introduction of early bilingualism would appear to be between 4 and 5 years, particularly when the parents themselves are not bilingual. At this age, the imitative capacities of the child are at their highest development and receptivity to socialisation via verbal communication is at the greatest.

Research findings (Segalowitz, 1981) show that interference between two languages varies greatly in extent and kind, depending on the degree to which the two languages are used in the same or different environments and the degree to which the child's exposure to each is evenly or unevenly balanced. According to Marton (1981), while interference need not be a major factor in naturalistic Second Language Acquisition (SLA), it will always be present in the classroom for foreign language learning. In naturalistic SLA, learners have the chance of extensive and intensive contacts with the target language, but in the second language classroom, learners will always use their first language between classes and this strengthens pro-active inhibition.

The idea that linguistic abilities acquired in one language can be put to use when a second language is introduced in schooling has been looked into by Cummins (1979), who has also tried to unravel why certain types of bilingual education for particular populations are more successful than others for certain populations. Cummins (1980) found that home-school language switching seemed to have no detrimental effects for most middle-class children from a majority language background. However, with many children from minority language backgrounds and less favoured socio-economic status, similar circumstances often led to poor academic achievement and an inadequate command of both first and second languages.

Leong and Neo (1986) found no strong relationship in the English-Chinese bilingual ability of a primary sample in Singapore. Their finding supports the conclusion arrived at independently by Ringborn (1976) and Kellerman (1979) that two languages have to be genetically close enough for transfer to occur.

In Singapore, children are introduced to an early bilingual education in their pre-school years. This study hopes to address an important issue in language learning. Are young children able to handle two languages competently?

METHODOLOGY

Sample

Chinese, Malay and Indian children between the ages 3½ and 6 plus took part in the study. Subjects were grouped into age bands with an interval of six months between them. These subjects were drawn from six centre types, namely*, PAP, PA, NTUC, YWCA, Private and MOE.

Instrumentation

The language tasks examined in this study were:

1. Auditory Discrimination (English)

    (a) Listening Discrimination (AD1G)
    (b) Repeat Production (AD2G)

---

* PAP : People's Action Party
  PA : People's Association
  NTUC : National Trade Union Congress
  YWCA : Young Women's Christian Association
  Private: Church-run or Individual Proprietorship
  MOE : Ministry of Education

2. Concept of Print (English)

   (a) Listening Comprehension (CP2G)
   (b) Alphabet - lower case (CP3G)
   (c) Alphabet - upper case (CP4G)

3. Word Knowledge (English)

   (a) Fruit (WK1G)
   (b) Animals (WK2G)
   (c) Furniture (WK3G)
   (d) Action (WK4G)

4. Verbal Fluency - English (VF)

5. Word Knowledge (Second Language)

   (a) Clothing (LWK1G)
   (b) Eating Utensils (LWK2G)
   (c) Transport (LWK3G)
   (d) Action (LWK4G)

6. Verbal Fluency - Second Language (LVF).

The second languages referred to here are Chinese (Mandarin), Malay and Tamil. The tasks were administered individually by trained research assistants.

RESULTS

In this study, only cross-sectional data were examined. For easy reading, only correlational coefficients significant at the 0.05 level are presented.

This section is divided into three parts:

I Comparison of two data collections with six months interval between them.

II Comparison between two contrasting centre types.

III Comparison of Correlational Patterns between Chinese, Malay and Tamil children.

I Comparison of data collections with six months interval between them

There is evidence of a developmental trend for the tasks in English Auditory Discrimination (AD), English Concept of Print (CP), Second Language Word Knowledge (LWK) and Second Language Verbal Fluency (LVF) as measured by the mean scores for the different age groups in both collections (Table 1a). A unique pattern was observed in the scores for English Word Knowledge (WK) and English Verbal Fluency (VF). While an increase in means was evident as the age bands increased in years, there was a dip in the means for the 4½-5 age cohort in Collection X. The same phenomenon was repeated six months later in the 5-5½ age cohort for Collection Y. Most of the children in the 5-5½ age cohort were from the 4½-5 age cohort in Collection X. This particular cohort of children was rather unusual and this warrants a further detailed analysis of their data.

There is a slight improvement in the mean scores for some tasks [English Listening Comprehension (CP2G); English Alphabet (CP3G and CP4G); English Verbal Fluency (VF); Second Language Verbal Fluency (LVF)] in the second Collection Y. This could be due to an earlier exposure to the test materials, maturation or school teaching and learning. However there is generally no distinct change in the standard deviations.

Tables 1a, 1b, 1c here

Significant and positive relationships were found between the English tasks and between the Second Language tasks (Tables 1b

and 1c). The results infer that interdependence exists between the different language tasks (Auditory Discrimination, Listening Comprehension, Alphabet Recognition, Word Knowledge and Verbal Fluency) for both the English Language and the Second Language. What about the relationships between the English tasks and the Second Language tasks?

The English tasks correlated positively with each other but negatively with the second language tasks (Tables 1b, 1d and 1e). This seems to indicate that those who were competent in English tended to be weak in the Second Language or vise versa. For certain tasks, like Recognition of Letters of the Alphabet (CP3G and CP4G) and easier Word Knowledge on Fruits and Animals (WK1G and WK2G), the negative correlations with the second language tasks were non-significant for the older age groups (5 to 6+, Tables 1d and 1e). This may mean that as the competencies in the two languages grow in the older children, the difference between the competencies in the languages also narrows down. Significant and positive relationships were reported between the Second Language tasks.

Tables 1d and 1e here

Does the same level of difficulty exist for the learning of English and that of a Second Language for children coming from English speaking homes and those coming from dialect-speaking homes?

In order to answer the above question, the correlational patterns of two different centre types were examined.

II Comparison between contrasting centre types

Private centres gave their pupils a longer exposure time to lessons taught in English. In addition, most of the pupils attending Private centres came from middle-class families whose parents were English speaking.

In contrast, Non-Private centres were attended by children coming from dialect-speaking homes. Most of their parents were from the lower income group. To compound matters, the exposure time to English in these centres was much less than that in the Private centres.

As expected, the mean scores for all the English tasks were higher than those for the total sample in the Private centres while they were lower in the Non-Private centres (Table 2a). The reverse was observed in the mean scores for the second language tasks.

Table 2a here

It is noteworthy that the number of significant correlations between the language tasks and especially between the English and the Second Language tasks decreased in the older age groups (Tables 2b and 2c). This may mean that the influence the language tasks had on each other decreased in the older children. This is also highlighted in the English speaking centres.

Contrary to the results found for the total sample, Recognition of Letters of the Alphabet (CP3G and CP4G)

correlated positively and significantly with Second Language Word Knowledge on Transport and Action (LWK3G and LWK4G) for the subjects in the Private centres. However, such results were not evident for the Non-Private centres. This seems to indicate that pupils coming from dialect-speaking homes encountered greater difficulty in the learning of English. Subjects having a good grasp of the Letters of the Alphabet (CP3G and CP4G) in the Private centres were also strong in the Word Knowledge in the Second Language (LWK).

Tables 2b and 2c here

The results appeared to concur with Cummins' (1980) observation that middle-class children coming from a majority language background were better able to cope with a bilingual education.

III Comparison of Correlational Patterns between Chinese, Malay and Tamil Subjects

To address the issue of a possible transfer from one language to another, it is pertinent to examine the relationships between the learning of English and each of the second languages, viz Chinese (Mandarin), Malay and Tamil. Chinese is an ideographic language while both Malay and Tamil are phonetic languages. Moreover, the Malay written language, like the English language, uses the Latinized alphabet.

The Malay sample was smaller and did not have the same spread of age range as the Chinese sample. As the Tamil sample

consisted of only 10 subjects, no attempt was made to analyse the data according to age groups.

In terms of mean scores for the English tasks, the Malay group appeared to tail behind the other two groups (Table 3a). In contrast, the Malay group achieved higher mean scores for the second language tasks.

Table 3a here

While higher intercorrelations were reported between Second Language tasks in Chinese and in Tamil, it was not so with the tasks in Malay (Table 3b).

The English tasks and the second language tasks correlated negatively for the Tamil group. But none of the correlation coefficients attained the accepted level of statistical significance (Table 3d).

The pattern of correlations for the Chinese group was very similar to that of the total sample (Table 3c).
The results from the Malay group were very interesting. The rare significant correlations registered between Listening Comprehension (CP2G) and Repeat Production (AD2G) with Second Language Word Knowledge (eating utensils) (LWK2G) were negative. But Listening Comprehension (CP2G), Alphabet Recognition (CP3G and CP4G) and Word Knowledge (fruits and animals) (WK1G and WK2G) showed moderately strong and positive relationships with Second Language Word Knowledge (eating

utensils and transport) (WK2G and LWK3G) (Table 3d).

Tables 3b, 3c and 3d here

Of the second language tasks, Word Knowledge (LWK) appeared to be affected by the English tasks. On the other hand, Verbal Fluency in the Second Language (LVF) seemed to be quite independent of the influence of the English tasks. In contrast, Verbal Fluency in English (VF) covaried negatively and significantly with Word Knowledge in Chinese (LWK).

DISCUSSION

Results based on the total sample imply that the younger pre-schoolers had difficulties in handling the learning of English and that of a Second Language simultaneously. This finding does not give support to the data obtained by Lenneberg (1967) and Doyle et al (1977).

Analysis of data from the different centre types shows that the difficulty level varied according to the degree of exposure to the two languages and, the age and socio-economic background of the subjects. Though there were some indications of difficulty in the bilingual learning of English and Malay, they were not as strong as those in the learning of Chinese and English. Actually, there was evidence of some support between the two languages in some tasks.

This outcome was not unexpected. Malay, in linguistic terms, is genetically closer to English as they are both phonetic languages and use the Latinized alphabet in their written form. Ringborn (1976) and Kellerman (1979) also concluded from their findings that transfer would only take place between two genetically linked languages. In addition, the home language for the Malay is also Malay. Mandarin and Tamil are the official mother tongues of the Chinese and Indians respectively but they are not necessarily the spoken languages of the home. To compound matters, the Chinese is an ideographic language making transfer between English and Chinese an extremely complex task. As the Tamil sample was very small (N=10), the only conclusion that could be drawn from the data was that the relationships between the English tasks and the second language tasks were negative though non-significant.

One finding of this study was that as the children matured and had longer exposure to the two languages, they were better able to handle the learning of the two languages, as indicated by the narrowing of the difference between their competencies in the two languages.

This study shows evidence of difficulty in the learning of English and the learning of a second language in young children, but the degree of difficulty varies according to the type of second language and the extent of exposures to the two languages in question, giving support to Segalowitz's (1981) research findings.

*****

Table 1a: Means and Standard Deviations of Language Tasks for Collections X and Y (Cross Sectional)

LANGUAGE TYPE			COLLECTION X						COLLECTION Y					
	AGE BAND		3-3½	3½-4	4-4½	4½-5	5-5½	5½-6	3½-4	4-4½	4½-5	5-5½	5½-6	6+
	N		104	109	116	120	94	104	101	71	123	77	130	75
ENGLISH	AD1G	M	19.64	19.86	20.44	20.91	21.84	22.07	19.88	20.74	21.08	20.90	22.09	22.08
		S.D.	1.76	1.95	2.01	1.59	1.57	1.55	1.73	2.25	2.14	2.35	2.01	1.66
	AD2G	M	13.72	14.81	15.44	15.63	17.12	17.55	15.85	16.20	17.59	17.23	18.89	18.76
		S.D.	6.07	5.65	5.75	5.54	5.41	4.97	5.82	5.56	4.83	4.83	4.09	3.98
	CP2G	M	11.02	11.40	11.35	11.99	12.50	13.06	12.72	13.54	13.08	12.74	14.82	15.08
		S.D.	4.02	4.21	4.62	4.44	4.89	4.64	4.06	4.33	4.62	4.72	3.94	3.60
	CP3G	M	18.39	18.75	23.22	22.54	26.71	27.51	20.86	22.18	26.85	26.78	28.06	27.73
		S.D.	5.31	5.74	5.98	6.14	4.48	4.02	6.02	6.10	4.42	4.36	3.82	4.00
	CP4G	M	19.14	20.30	24.22	23.98	27.10	28.08	22.11	23.61	27.33	27.40	28.61	28.07
		S.D.	5.82	5.95	5.97	6.33	4.47	3.54	6.55	6.46	4.61	4.02	3.25	3.57
	WK1G	M	9.71	10.05	9.79	9.61	10.44	10.52	10.16	10.30	10.19	10.35	11.11	10.88
		S.D.	1.94	1.95	2.11	2.09	1.73	1.77	2.01	1.97	1.93	1.78	1.25	1.52
	WK2G	M	10.06	10.39	10.31	10.33	10.71	10.97	10.67	10.66	10.67	11.00	11.29	11.49
		S.D.	2.26	2.26	2.40	2.40	3.21	1.75	2.13	2.10	2.18	1.60	1.40	1.20
	WK3G	M	9.35	9.44	8.66	8.26	9.15	9.47	9.56	9.39	8.78	8.30	9.90	9.71
		S.D.	2.83	3.04	3.09	3.08	3.21	2.97	3.01	3.42	3.45	3.19	2.60	2.79
	WK4G	M	9.02	9.26	8.47	8.05	9.14	9.64	9.96	9.56	9.06	8.48	10.24	10.41
		S.D.	3.21	3.25	3.40	3.48	3.30	3.25	3.17	3.59	3.50	3.61	2.93	2.80
	VF2	M	2.48	2.32	2.28	2.08	2.37	2.58	2.72	2.77	2.61	2.32	3.11	3.17
		S.D.	1.26	1.25	1.38	1.39	1.44	1.42	1.38	1.48	1.62	1.33	1.61	1.61
SECOND LANGUAGE	LWK1G	M	8.89	9.29	9.70	10.44	10.67	10.88	8.21	9.46	10.5	10.61	10.88	11.20
		S.D.	3.05	2.91	3.02	2.71	2.25	2.35	3.52	3.09	2.83	2.56	2.10	2.19
	LWK2G	M	8.47	8.75	9.12	10.03	10.11	10.41	8.08	8.80	9.11	10.38	10.33	10.84
		S.D.	2.82	2.93	3.22	2.67	2.52	2.48	3.35	3.15	3.21	2.51	2.56	2.30
	LWK3G	M	9.14	9.28	9.88	10.75	11.10	11.11	8.98	9.92	10.34	11.06	11.28	11.41
		S.D.	2.89	2.94	2.92	2.29	1.76	2.00	3.15	2.82	2.51	1.79	1.73	1.44
	LWK4G	M	9.14	9.83	10.53	11.24	11.61	11.62	9.76	10.56	10.71	11.36	11.40	11.75
		S.D.	3.13	3.06	2.74	1.98	1.42	1.73	3.21	2.68	2.67	1.86	1.71	1.09
	LVF2	M	2.46	2.48	3.00	3.03	3.36	3.67	2.81	3.08	3.44	3.78	4.08	4.32
		S.D.	1.25	1.18	1.36	1.07	1.90	1.42	1.46	1.31	1.57	1.68	1.51	1.43

TABLE 1b: CORRELATIONAL MATRIX BETWEEN ENGLISH TASKS FOR COLLECTIONS X AND Y

AGE BAND	TASKS	AD1	AD2	CP2G	CP3G	CP4G	WK1G	WK2G	WK3G	WK4G	VF	AGE BAND
3-3½			.28	.18	-	-	.33	.35	.20	.23	.24	3½-4
3½-4		Y	.48	.49	.40	.40	-	.42	.35	.43	.41	4-4½
4-4½	AD1G		.43	.45	.24	.24	.16	.21	.40	.38	.40	4½-5
4½-5			.47	.35	-	-	.22	.39	.36	.32	.34	5-5½
5-5½		X	.35	.43	.26	.28	-	.39	.45	.36	.49	5½-6
5½-6			.45	.49	.42	.38	.50	.41	.45	.35	.36	6+
3-3½		-		.68	.53	.54	.50	.54	.72	.76	.59	3½-4
3½-4		.27	Y	.75	.44	.50	.58	.64	.66	.72	.71	4-4½
4-4½	AD2G	.34		.71	.32	.32	.49	.54	.62	.68	.64	4½-5
4½-5		.26		.58	.36	.43	.45	.53	.54	.42	.51	5-5½
5-5½		.40	X	.56	.20	.22	.26	.37	.54	.49	.53	5½-6
5½-6		.37		.70	.33	.33	.32	.35	.59	.57	.49	6+
3-3½		-	.58		.51	.47	.50	.55	.73	.71	.74	3½-4
3½-4		.33	.57	Y	.49	.52	.56	.67	.69	.76	.76	4-4½
4-4½	CP2G	.33	.65		.44	.46	.55	.51	.78	.81	.76	4½-5
4½-5		.17	.58		-	.25	.50	.54	.81	.81	.73	5-5½
5-5½		.32	.65	X	.37	.32	.44	.57	.69	.84	.72	5½-6
5½-6		.52	.58		.36	.43	.54	.48	.79	.76	.70	6+
3-3½		-	.41	.30		.88	.48	.54	.54	.56	.47	3½-4
3½-4		-	.23	.33	Y	.88	.34	.51	.50	.54	.52	4-4½
4-4½	CP3G	.38	.49	.52		.88	.44	.44	.56	.46	.41	4½-5
4½-5		.34	.41	.33		.86	.50	.44	.45	.34	.32	5-5½
5-5½		.27	.44	.39	X	.86	.30	.35	.44	.33	.27	5½-6
5½-6		.19	.30	.36		.89	.51	.26	.44	.41	.26	6+
3-3½		-	.38	.27	.88		.47	.49	.53	.57	.41	3½-4
3½-4		.20	.21	.38	.85	Y	.46	.57	.64	.61	.58	4-4½
4-4½	CP4G	.39	.50	.52	.88		.50	.53	.53	.49	.43	4½-5
4½-5		.28	.41	.38	.85		.47	.45	.40	.33	.25	5-5½
5-5½		.25	.48	.41	.91	X	.32	.42	.42	.30	.26	5½-6
5½-6		.27	.29	.32	.90		.60	.28	.58	.50	.32	6+
3-3½		.16	.30	.42	.26	.34		.69	.60	.58	.46	3½-4
3½-4		-	.38	.53	.28	.30	Y	.69	.69	.70	.55	4-4½
4-4½	WK1G	.21	.41	.59	.50	.58		.77	.67	.70	.55	4½-5
4½-5		.32	.53	.53	.28	.30		.51	.60	.50	.48	5-5½
5-5½		-	.50	.56	.43	.39	X	.45	.45	.42	.46	5½-6
5½-6		.32	.30	.50	.44	.43		.34	.60	.59	.34	6+
3-3½		-	.44	.43	.30	.27	.72		.71	.73	.54	3½-4
3½-4		-	.41	.46	.19	.20	.70	Y	.77	.76	.63	4-4½
4-4½	WK2G	.27	.44	.49	.46	.57	.72		.62	.66	.46	4½-5
4½-5		.22	.44	.46	.19	.20	.70		.58	.53	.43	5-5½
5-5½		.32	.41	.58	.35	.27	.57	X	.56	.51	.44	5½-6
5½-6		.28	.40	.54	.51	.52	.63		.49	.34	.30	6+
3-3½		-	.54	.52	.32	.35	.62	.68		.86	.68	3½-4
3½-4		-	.44	.67	.25	.29	.70	.65	Y	.93	.72	4-4½
4-4½	WK3G	.27	.53	.71	.51	.56	.70	.66		.86	.71	4½-5
4½-5		.31	.61	.67	.25	.29	.70	.58		.79	.75	5-5½
5-5½		.28	.54	.77	.49	.51	.52	.56	X	.67	.63	5½-6
5½-6		.39	.54	.69	.45	.49	.67	.61		.66	.58	6+
3-3½		-	.56	.62	.37	.39	.55	.62	.77		.68	3½-4
3½-4		.23	.50	.70	.30	.35	.67	.66	.84	Y	.77	4-4½
4-4½	WK4G	.21	.56	.76	.49	.52	.65	.62	.86		.72	4½-5
4½-5		.23	.59	.70	.30	.35	.67	.50	.84		.65	5-5½
5-5½		.23	.57	.86	.37	.36	.68	.63	.78	X	.69	5½-6
5½-6		.50	.63	.81	.32	.34	.49	.56	.68		.58	6+
3-3½		-	.52	.49	.24	.27	.35	.49	.64	.63		3½-4
3½-4		.29	.52	.70	.27	.29	.47	.41	.63	.65	Y	4-4½
4-4½	VF	.22	.54	.73	.47	.49	.58	.51	.68	.73		4½-5
4½-5		.21	.53	.71	.27	.29	.47	.38	.63	.65		5-5½
5-5½		-	.55	.71	.30	.33	.50	.42	.61	.66	X	5½-6
5½-6		.41	.52	.65	.23	.28	.44	.39	.55	.61		6+

TABLE 1c: CORRELATIONAL MATRIX BETWEEN SECOND LANGUAGE TASKS FOR COLLECTIONS X AND Y

AGE BAND	TASKS	LWK1G	LWK2G	LWK3G	LWK4G	LVF	AGE BAND
3-3½			.80	.83	.78	.68	3½-4
3½-4		Y	.83	.80	.64	.57	4-4½
4-4½	LWK1G		.88	.82	.87	.62	4½-5
4½-5			.79	.78	.80	.62	5-5½
5-5½		X	.87	.80	.73	.53	5½-6
5½-6				.77	.71	.41	6+
3-3½		.89		.80	.72	.65	3½-4
3½-4		.88	Y	.79	.61	.54	4-4½
4-4½	LWK2G	.87		.76	.73	.61	4½-5
4½-5		.83		.73	.81	.57	5-5½
5-5½		.82	X	.77	.60	.51	5½-6
5½-6		.88		.76	.60	.40	6+
3-3½		.89	.88		.72	.68	3½-4
3½-4		.88	.85	Y	.73	.62	4-4½
4-4½	LWK3G	.84	.80		.82	.57	4½-5
4½-5		.82	.83		.75	.53	5-5½
5-5½		.67	.75	X	.75	.51	5½-6
5½-6		.81	.76		.59	.41	6+
3-3½		.80	.71	.77		.64	3½-4
3½-4		.82	.73	.78	Y	.52	4-4½
4-4½	LWK4G	.76	.70	.82		.59	4½-5
4½-5		.72	.67	.78		.56	5-5½
5-5½		.29	-	.39	X	.54	5½-6
5½-6		.75	.71	.80		.33	6+
3-3½		.68	.66	.67	.69		3½-4
3½-4		.62	.68	.64	.62	Y	4-4½
4-4½	LVF	.56	.55	.53	.56		4½-5
4½-5		.56	.52	.62	.57		5-5½
5-5½		.43	.47	.49	.28	X	5½-6
5½-6		.39	.37	.50	.42		6+

TABLE 1d: CORRELATIONAL MATRIX BETWEEN ENGLISH AND SECOND LANGUAGE TASKS FOR COLLECTION X

2ND LANG TASKS	ENGLISH TASKS										AGE BAND
	AD1G	AD2G	CP2G	CP3G	CP4G	WK1G	WK2G	WK3G	WK4G	VF	
LWK1G	-	-.46	-.33	-	-.17	-.26	-.29	-.55	-.49	-.46	3-3½
	-	-.36	-.50	-	-.18	-.33	-.35	-.52	-.55	-.47	3½-4
	-	-.30	-.54	.23	-.24	-.34	-.32	-.53	-.57	-.57	4-4½
	-.21	-.29	-.50	-	-.18	-.33	-	-.52	-.55	-.47	4½-5
	-	-.28	-.39	-	-	-	-	-.35	-.31	-.39	5-5½
	-.24	-.32	-.37	-	-	-.19	-.16	-.31	-.30	-.50	5½-6
LWK2G	-	-.41	-.33	-	-.18	-.27	-.31	-.50	-.44	-.40	3-3½
	-.17	-.44	-.54	-	-	-.35	-.36	-.52	-.49	-.47	3½-4
	-	-.31	-.54	-.17	-	-.30	-.27	-.47	-.53	-.55	4-4½
	-.17	-.39	-.54	-	-	-.35	-.21	-.52	-.49	-.47	4½-5
	-	-	-.32	-	-	-	-	-.25	-.24	-.39	5-5½
	-.24	-.34	-.40	-	-.15	-	-.17	-.34	-.32	-.48	5½-6
LWK3G	-	-.40	-.30	-.16	-.19	-.31	-.37	-.51	-.46	-.43	3-3½
	-	-.43	-.55	-	-.17	-.39	-.40	-.57	-.60	-.50	3½-4
	-	-.34	-.50	-.21	-.24	-.38	-.35	-.53	-.60	-.60	4-4½
	-.25	-.40	-.55	-	-.17	-.39	-.18	-.57	-.60	-.50	4½-5
	-	-.33	-.34	-	-	-	-	-.34	-.80	-.46	5-5½
	-.20	-.32	-.31	-	-.16	-	-	-.26	-.29	-.41	5½-6
LWK4G	-	-.27	-	-	-	-	-	-.35	-.22	-.29	3-3½
	-.16	-.29	-.45	-	-	-.26	-.22	-.44	-.42	-.38	3½-4
	-	-.23	-.38	-	-	-.30	-.24	-.39	-.44	-.45	4-4½
	-.22	-.27	-.45	-	-	-.26	-	-.44	-.42	-.38	4½-5
	-.20	-.30	-	-	-	-	-	-.20	-	-.25	5-5½
	-	-.30	-.24	-	-	-	-	-.22	-.19	-.34	5½-6
LVF	-	-.34	-.24	-.18	-.21	-.22	-.24	-.38	-.34	-.32	3-3½
	-.27	-.34	-.47	-	-	-.39	-.31	-.43	-.45	-.39	3½-4
	-	-.33	-.27	-	-	-	-	-.27	-.36	-.26	4-4½
	-	-	-.47	-	-	-.39	-	-.43	-.45	-.39	4½-5
	-	-.24	-.32	-	-	-.21	-	-.27	-.30	-.24	5-5½
	-	-	-	-	-	-	-	-.20	-.25	-	5½-6

TABLE 1e: CORRELATIONAL MATRIX BETWEEN ENGLISH AND SECOND LANGUAGE TASKS FOR COLLECTION Y

2ND LANG TASKS	ENGLISH TASKS										AGE BAND
	AD1G	AD2G	CP2G	CP3G	CP4G	MK1G	MK2G	MK3G	MK4G	VF	
LWK1G	-	-.19	-.23	-	-	-	-.23	-.41	-.34	-.32	3½-4
	-.23	-.42	-.48	-.32	-.27	-.32	-.28	-.35	-.36	-.43	4-4½
	-.22	-.45	-.50	-.27	-.25	-.39	-.27	-.53	-.48	-.52	4½-5
	-	-.35	-.43	-	-	-.32	-	-.46	-.32	-.39	5-5½
	-	-	-	-	-	-	-	-.21	-	-.18	5½-6
	-.25	-.29	-.27	-	-	-	-	-.24	-	-.31	6+
LWK2G	-	-	-.17	-	-	-	-.17	-.33	-.25	-.25	3½-4
	-	-.40	-.45	-.27	-.24	-.38	-.30	-.39	-.40	-.44	4-4½
	-	-.43	-.41	-	-	-.30	-.20	-.44	-.40	-.46	4½-5
	-	-.39	-.44	-	-	-.29	-	-.49	-.35	-.36	5-5½
	-.24	-.24	-.28	-	-	-	-	-.27	-.24	-.31	5½-6
	-	-.21	-.24	-	-	-	-	-.25	-	-.34	6+
LWK3G	-	-	-.19	-	-	-	-.16	-.37	-.30	-.33	3½-4
	-	-.47	-.51	-.29	-.32	-.36	-.29	-.40	-.41	-.46	4-4½
	-	-.42	-.39	-	-	-.29	-.21	-.48	-.42	-.43	4½-5
	-.26	-.45	-.38	-	-	-.35	-	-.41	-.24	-.32	5-5½
	-.20	-.27	-.27	-	-	-.19	-	-.27	-.23	-.28	5½-6
	-.26	-.34	-.26	-	-	-	-	-.24	-	-.42	6+
LWK4G	-	-	-.19	-	-	-	-.22	-.34	-.27	-.24	3½-4
	-	-.32	-.25	-	-	-	-	-.25	-	-.28	4-4½
	-.19	-.42	-.39	-.21	-.19	-.31	-.22	-.43	-.39	-.39	4½-5
	-	-.31	-.32	-	-	-.26	-	-.36	-.31	-.24	5-5½
	-	-.16	-.18	-.16	-	-	-	-.18	-	-.28	5½-6
	-	-	-	-	-	-	-	-	-	-.31	6+
LVF	-	-	-	-	-	-	-	-.24	-.17	-	3½-4
	-	-.29	-.29	-	-	-.30	-	-.39	-.36	-.24	4-4½
	-	-	-	-	-	-	-	-.22	-	-.19	4½-5
	-	-.27	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-.21	5½-6
	-.28	-	-	-	-	-	-	-	-	-	6+

TABLE 2a: MEANS AND STANDARD DEVIATIONS OF LANGUAGE TASKS FOR PRIVATE AND NON-PRIVATE TYPE CENTRES

		NON-PRIVATE TYPE CENTRES						PRIVATE TYPE CENTRES					
AGE BAND		3½-4	4-4½	4½-5	5-5½	5½-6	6+	3½-4	4-4½	4½-5	5-5½	5½-6	6+
N		31	26	54	33	34	17	36	18	25	27	13	75
AD1G	M	19.23	19.27	20.50	20.58	21.50	21.53	20.11	20.83	20.24	22.57	23.15	23.00
	S.D.	2.38	2.75	2.40	2.89	1.66	1.59	1.39	1.65	1.88	1.50	1.10	0.91
AD2G	M	12.52	13.15	15.06	15.56	16.74	16.29	17.75	18.50	21.00	20.86	21.86	21.08
	S.D.	6.44	5.39	5.31	4.62	4.49	5.58	3.64	5.95	2.45	5.30	2.67	1.71
CP2G	M	10.32	10.50	10.46	9.85	10.68	12.24	14.08	16.28	17.40	17.57	17.78	17.00
	S.D.	4.04	4.65	4.53	4.51	4.25	4.52	3.10	1.84	1.50	1.09	0.58	3.32
CP3G	M	18.23	19.38	26.37	26.55	26.50	27.53	22.89	25.33	29.16	28.43	28.59	29.54
	S.D.	6.00	5.51	4.68	4.98	5.55	3.37	5.88	6.03	2.23	2.31	3.23	1.20
CP4G	M	19.84	20.92	26.67	27.42	27.35	27.71	24.03	26.17	29.80	28.79	29,00	29.46
	S.D.	6.89	6.99	5.17	4.32	4.89	4.06	6.30	6.24	0.65	2.36	2.27	1.13
WK1G	M	9.42	9.58	9.43	10.08	10.74	10.18	10.78	11.06	11.56	11.71	11.81	11.38
	S.D.	2.90	2.39	2.06	1.87	1.64	1.63	0.80	0.11	0.58	0.61	0.40	1.12
WK2G	M	9.48	9.27	9.94	10.73	10.47	10.82	11.36	11.44	11.80	11.86	11.89	11.85
	S.D.	2.90	2.60	2.37	1.66	2.16	2.19	1.27	1.46	0.41	-	-	0.55
WK3G	M	7.87	7.38	7.11	6.97	8.29	8.12	10.78	11.06	11.80	11.50	11.74	11.62
	S.D.	3.54	3.74	3.39	1.66	3.12	2.96	2.10	2.52	0.82	1.16	1.02	1.39
WK4G	M	7.58	7.27	6.87	6.30	6.94	7.41	11.19	11.11	12.0	11.43	12.0	11.77
	S.D.	3.73	3.89	3.48	3.25	3.15	3.45	2.08	2.59	-	2.14	-	0.83
VF2	M	1.77	1.81	1.83	1.79	1.82	2.00	3.25	3.44	4.32	3.71	4.67	4.69
	S.D.	1.06	1.17	1.37	1.19	1.24	0.94	1.32	1.38	1.18	1.33	1.30	1.65
LWK1G	M	9.23	10.00	11.00	11.33	11.15	11.53	7.25	7.11	7.40	8.50	9.11	10.15
	S.D.	3.57	3.16	2.07	1.83	1.79	1.94	3.34	3.14	3.14	3.44	2.90	3.51
LWK2G	M	8.81	9.42	10.24	11.06	11.03	11.29	6.97	6.67	6.44	8.86	8.26	9.46
	S.D.	3.27	2.86	2.32	1.78	1.98	1.96	3.26	3.29	3.40	3.57	3.45	3.53
LWK3G	M	10.13	10.03	11.07	11.64	11.68	11.71	7.83	7.83	8.84	9.84	10.11	10.38
	S.D.	2.54	2.87	1.87	0.86	1.41	0.99	3.22	3.33	2.85	2.53	2.52	2.57
LWK4G	M	10.26	10.42	11.44	11.70	11.62	12.0	8.72	9.00	8.76	10.50	10.52	10.77
	S.D.	2.84	2.53	1.57	1.42	1.52	-	3.74	3.77	1.64	2.68	2.58	2.39
LVF2	M	2.97	3.12	3.65	3.94	4.18	4.53	2.47	2.39	2.76	2.64	3.30	3.54
	S.D.	1.43	1.42	1.57	1.50	1.55	1.37	1.48	1.24	1.64	1.55	1.51	1.39

TABLE 2b: CORRELATIONAL MATRIX BETWEEN ENGLISH AND SECOND LANGUAGE FOR PRIVATE TYPE CENTRES

2ND LANG TASKS	ENGLISH TASKS										AGE BAND
	AD1G	AD2G	CP2G	CP3G	CP4G	WK1G	WK2G	WK3G	WK4G	VF	
LWK1G	-	-	-	-	-	-	-	-.31	-	-	3½-4
	-	-	-	-	-	-	-	-	-	-	4-4½
	-	-	-	-	-	-	-	-	-	-	4½-5
	-	-.50	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-.36	-	-	-	5½-6
	-	-	-	-	-	-	-	-	-	-	6+
LWK2G	-	-	-	-	-	-	-.34	-	-	-	3½-4
	-	-	-	-	-	-.53	-	-	-	-.51	4-4½
	-	-	-	-	-	-	-	-.42	-	-	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-.34	-	-	-	-	-	-	5½-6
	-	-	-	-	-	-	-	-	-	-	6+
LWK3G	-	-	-	-	-	-	-	-.34	-	-	3½-4
	-	-.57	-.61	-	-	-.57	-	-	-	-.58	4-4½
	-	-.41	-	.39	.46	-	-	-	-	-	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-	5½-6
	-	-.50	-	-	-	-	-	-	-	-	6+
LWK4G	-	-	-	-	-	-	-.36	-	-	-	3½-4
	-	-.63	-	-	-	-.46	-	-	-	-.52	4-4½
	-	-	-	-	-	-	-	-	-	-	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	.46	-	-	-	-	-	-	5½-6
	-	-	-	-	-	-	-	-	-	-	6+
LVF	-	-	-	-	-	-	-	-.37	-	-	3½-4
	-	-	-	-	-	-	-	-	-	-	4-4½
	-	-	-	-	-	-	-	-.44	-	-	4½-5
	-	-.70	-.64	-	-	-	-	-.62	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-	5½-6
	-.52	-	-	-	-	-	-	-	-	-	6+

TABLE 2c: CORRELATIONAL MATRIX BETWEEN ENGLISH AND SECOND LANGUAGE TASKS FOR NON-PRIVATE TYPE CENTRES

2ND LANG. TASKS	ENGLISH TASKS										AGE BAND
	AD1G	AD2G	CP2G	CP3G	CP4G	WK1G	WK2G	WK3G	WK4G	VF	
LWK1G	-	-.37	-.38	-	-	-	-	-.54	-.55	-	3½-4
	-	-.40	-.54	-.35	-	-	-	-.48	-.49	-.50	4-4½
	-	-.36	-.38	-	-	-.27	-	-.41	-.49	-.40	4½-5
	-.46	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-	5½-6
	-	-	-	-	-	-	-	-	-	-.55	6+
LWK2G	-	-.34	-.32	-	-	-	-	-.39	-.42	-	3½-4
	-	-.34	-.51	-	-	-	-.34	-.48	-.52	-.50	4-4½
	-	-.30	-	-	-	-	-	-	-.29	-.33	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-.33	5½-6
	-	-	-	-	-	-	-	-	-	-.44	6+
LWK3G	-	-	-	-	-	-	-	-.38	-.39	-	3½-4
	-	-.47	-.69	-.37	-.37	-	-.42	-.58	-.58	-.62	4-4½
	-	-.29	-.29	-	-	-	-	-.36	-.41	-.30	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-.54	5½-6
	-	-.43	-	-	-	-	-	-	-	-.54	6+
LWK4G	-	-.32	-	-	-	-	-	-.37	-.38	-	3½-4
	-	-	-.43	-	-	-	-	-.36	-.37	-.36	4-4½
	-	-.46	-.33	-	-	-.25	-	-.37	-.42	-	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-.47	5½-6
	-	-	-	-	-	-	-	-	-	-	6+
LVF	-	-	-	-	-	-	-	-	-.35	-	3½-4
	-	-.45	-.55	-	-	-.36	-.34	-.56	-.60	-.44	4-4½
	-	-	-	-	-	-	-	-	-	-	4½-5
	-	-	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-	5½-6
	-	-	-	-	-	-.44	-	-	-	-	6+

TABLE 3a: MEANS AND STANDARD DEVIATIONS OF LANGUAGE TASKS FOR THE CHINESE, MALAY AND TAMIL GROUPS

		CHINESE						MALAY				TAMIL
AGE BAND		3½-4	4-4½	4½-5	5-5½	5½-6	6+	4-4½	4½-5	5-5½	5½-6+	4 - 6+
N		100	69	106	65	116	66	11	21	17	22	10
AD1G	M	19.87	20.12	20.92	20.89	22.16	22.17	21.27	20.81	20.35	21.36	20.60
	S.D.	1.74	2.25	2.21	2.46	1.59	1.65	1.49	1.08	1.62	1.14	4.81
AD2G	M	15.82	16.00	17.41	16.92	18.61	18.67	16.09	15.90	12.82	15.68	19.40
	S.D.	5.54	5.51	4.89	4.95	4.08	4.20	4.64	4.48	5.47	2.78	3.47
CP2G	M	12.67	1.346	12.99	12.97	14.74	15.08	10.73	9.67	10.53	11.18	14.30
	S.D.	6.04	4.36	4.82	4.90	4.04	3.70	2.90	3.35	4.68	3.06	3.86
CP3G	M	20.83	22.03	26.76	26.88	27.90	27.58	23.09	18.95	26.12	26.23	28.30
	S.D.	6.04	6.11	4.56	4.09	2.98	4.14	5.92	6.70	4.85	4.82	1.95
CP4G	M	22.06	23.48	27.26	27.42	28.50	27.98	24.36	19.95	27.00	26.95	29.00
	S.D.	6.56	6.51	4.79	4.14	3.41	3.58	6.41	7.09	5.12	4.06	1.49
WK1G	M	10.14	10.26	10.23	10.35	11.09	10.83	9.09	8.86	9.94	10.05	11.50
	S.D.	2.02	1.98	1.98	1.85	1.28	1.53	1.76	1.71	1.92	1.36	0.71
WK2G	M	10.66	10.62	10.68	11.00	11.28	11.55	10.09	10.38	10.82	10.77	11.30
	S.D.	2.14	2.12	2.19	1.68	1.43	1.07	2.47	1.80	1.88	1.74	0.95
WK3G	M	9.54	9.32	8.78	8.52	9.82	9.59	7.55	7.43	8.18	8.45	10.70
	S.D.	3.02	3.44	3.47	3.22	2.62	2.81	1.92	1.94	3.19	2.81	1.64
WK4G	M	9.95	9.49	8.92	8.58	10.22	10.35	8.36	7.05	8.65	9.00	10.00
	S.D.	3.19	3.62	3.58	3.65	2.95	2.83	1.69	2.84	3.30	2.53	3.64
VF2	M	2.69	2.71	2.63	2.35	3.11	3.23	1.45	1.19	1.94	1.68	3.10
	S.D.	1.35	1.44	1.70	1.40	1.63	1.68	0.69	0.51	1.03	0.95	2.02
LWK1G	M	8.31	9.51	10.07	10.49	10.88	11.11	12.0	11.81	11.94	12.0	10.90
	S.D.	3.51	3.05	2.74	2.60	2.05	2.31	-	0.60	-	-	1.97
LWK2G	M	8.12	8.83	9.10	10.29	10.32	10.70	11.45	11.29	11.18	11.50	11.00
	S.D.	3.34	3.12	3.18	2.56	2.53	2.42	0.82	1.42	1.13	0.91	2.54
LWK3G	M	9.03	9.97	10.44	11.09	11.34	11.35	11.55	11.48	11.29	11.77	10.90
	S.D.	3.13	2.76	2.30	1.71	1.54	1.52	0.69	1.03	1.21	0.61	2.51
LVF2	M	2.83	3.1	3.41	3.55	4.01	4.15	3.18	3.33	5.18	4.36	4.1
	S.D.	1.46	1.3	1.54	1.53	1.45	1.41	1.33	1.20	1.19	1.09	1.6

TABLE 3b: CORRELATIONS BETWEEN SECOND LANGUAGE TASKS IN CHINESE, MALAY AND TAMIL

LANGUAGE	CHINESE						MALAY				TAMIL
AGE BAND / TASKS	3½-4	4-4½	4½-5	5-5½	5½-6	6+	4-4½	4½-5	5-5½	5½-6+	4 - 6+
LWK1G X LWK2G	.80	.82	.89	.88	.77	.87	-	.42	.50	-	.95
X LWK3G	.83	.79	.81	.76	.77	.77	-	.48	-	-	.85
X LWK4G	.77	.62	.84	.78	.68	.70	-	-	-	-	.96
X LVF	.62	.54	.57	.60	.48	.48	-	-	-	-	.82
LWK2G X LWK3G	.80	.78	.72	.73	.76	.76	-	.55	-	.38	.92
X LWK4G	.71	.59	.71	.79	.54	.66	-	-	-	-	1.00
X LVF	.64	.52	.57	.57	.48	.38	-	-	-	-	.74
LWK3G X LWK4G	.78	.71	.79	.69	.65	.59	-	-	-	-	.97
X LVF	.68	.60	.52	.50	.46	.41	-	-	-	-	.75
LWK3G X LVF	.63	.49	.54	.55	.50	.33	-	-	-	-	.74

TABLE 3c: CORRELATIONAL MATRIX BETWEEN ENGLISH AND SECOND LANGUAGE TASKS FOR THE CHINESE GROUP

CHINESE TASKS	ENGLISH TASKS										AGE BAND
	AD1G	AD2G	CP2G	CP3G	CP4G	WK1G	WK2G	WK3G	WK4G	VF	
LWK1G	-	-	-.22	-	-	-	-.23	-.41	-.34	-.30	3½-4
	-	-.41	-.48	-.31	-.26	-.31	-.28	-.35	-.36	-.47	4-4½
	-.22	-.46	-.51	-.25	-.25	-.38	-.26	-.53	-.51	-.51	4½-5
	-	-.36	-.42	-	-	-.31	-	-.44	-.32	-.38	5-5½
	-	-	-	-.16	-	-	-	-.20	-	-	5½-6
	-.26	-.31	-.28	-	-	-	-	-.28	-	-.31	6+
LWK2G	-	-	-	-	-	-	-	-.32	-.24	-.23	3½-4
	-	-.39	-.45	-.26	-	-.38	-.30	-.40	-.41	-.49	4-4½
	-	-.44	-.43	-.16	-	-.31	-.18	-.42	-.43	-.46	4½-5
	-	-.40	-.42	-	-	-.28	-	-.47	-.33	-.34	5-5½
	-	-.21	-.27	-	-	-	-	-.27	-.23	-.27	5½-6
	-	-.29	-.25	-	-	-	-	-.29	-	-.33	6+
LWK3G	-	-	-	-	-	-	-	-.37	-.30	-.30	3½-4
	-	-.46	-.51	-.28	-.32	-.36	-.29	-.41	-.41	-.50	4-4½
	-	-.42	-.41	-	-.18	-.30	-.19	-.46	-.45	-.43	4½-5
	-.27	-.46	-.40	-	-	-.34	-	-.41	-.24	-.33	5-5½
	-.27	-.24	-.27	-	-	-.18	-	-.28	-.23	-.24	5½-6
	-.27	-.36	-.29	-	-	-	-	-.30	-.25	-.42	6+
LWK4G	-	-	-	-	-	-	-.21	-.33	-.27	-.21	3½-4
	-	-.29	-.23	-	-	-	-	-.24	-	-.29	4-4½
	-.17	-.41	-.38	-.18	-.18	-.30	-.20	-.41	-.40	-.36	4½-5
	-	-.28	-.30	-	-	-.25	-	-.33	-.30	-	5-5½
	-	-	-	-.23	-	-	-	-.17	-	-	5½-6
	-	-	-	-	-	-	-	-	-	-.31	6+
LVF	-	-	-	-	-	-	-	-.24	-	-	3½-4
	-	-.27	-.28	-	-	-.30	-	-.39	-.36	-.26	4-4½
	-	-	-	-	-	-	-	-.19	-	-	4½-5
	-	-.33	-	-	-	-	-	-	-	-	5-5½
	-	-	-	-	-	-	-	-	-	-	5½-6
	-	-	-	-	-	-	-	-	-	-	6+

TABLE 3d: CORRELATIONAL MATRIX BETWEEN ENGLISH AND SECOND LANGUAGE TASKS FOR THE MALAY AND TAMIL GROUPS

TASKS	LANG	AD1G	AD2G	CP2G	CP3G*	CP4G*	WK1G	WK2G	WK3G	WK4G	VF	AGE BAND
LWK1G	M	-	-	-	-	-	-	-	-	-	-	4–4½
		-	-	-	-	-	-	-	-	-	-	4½–5
		-	-	-	-	-	-	-	-	-	-	5–5½
		-	-	-	-	-	-	-	-	-	-	5½–6+
	T	-	-	-	-	-	-	-	-	-	-	4–6+
LWK2G	M	-	-	-	.73	.78	-	.52	-	-	-	4–4½
		-.39	-	-	-	-	-	-	-.45	-	-	4½–5
		-	-.51	-.50	-	-	-	-	-.46	-	-	5–5½
		-	-	-	-	.43	.40	-	-	-	-	5½–6+
	T	-	-	-	-	-	-	-	-	-	-	4–6+
LWK3G*	M	-	-	.63	-	-	-	-	-	-	-	4–4½
		-	-	-	-	-	.49	-	-	-	-	4½–5
		-	-	-	-	-	-	-	-	-	-	5–5½
		-	-	-	.44	-	-	-	-	-	-	5½–6+
	T	-	-	-	-	-	-	-	-	-	-	4–6+
LWK4G	M	-	-	-	-	-	-	-	-	-	-	4–4½
		-	-	-	-	-	-	-	-	-	-	4½–5
		-	-	-	-	-	-	-	-	-	-	5–5½
		-	-	-	-	-	-	-	-	-	-	5½–6+
	T	-	-	-	-	-	-	-	-	-	-	4–6+
LVF	M	-	-	-	-	-	-	-	-	-	-	4–4½
		-	-	.59	-	-	-	-	-	-	-	4½–5
		-	-	-	-	-	-.46	-	-	-	-	5–5½
		-	-	-	-	-	-	-	-	-	-	5½–6+
	T	-	-	-	-	-	-	-	-	-	-	4–6+

REFERENCES

1. Berman, A. (1979). The Re-emergence of a Bilingual: A Case Study of a Hebrew-English Speaking Child, Working Papers in Bilingual, 19, 157-179.

2. Beardsmore, H.B. (1982). Bilingualism: Basic Principles. Great Britain: Tieto Ltd.

3. Cummins, J. (1979). Linguistic Interdependence and the Educational Development of Bilingual Children, Review of Educational Research, 49, 2, 221-251.

4. Cummins, J. (1980). Psychological Assessment of Immigrant Children: Logic or Intuition. Journal of Multilingual and Multicultural Development, 1/2, 97-111.

5. Doyle, A.B.; Champagne, M. and Segalowitz, N. (1977). Some issues in the Assessment of Early Bilingualism. Working Papers in Bilingualism, 4, 21-30.

6. Kellerman, E. (1979). Transfer and non-transfer: Where are we now? Studies in Second Language Acquisition, 2, 37-57.

7. Lebrun, Y. and Hasquin, J. (1971). Bilinguisme pre'oce et troubles dir language, in De Coster, S (ed), Aspects Sociologiques du plarilinguisme. Bruxelles - Paris, Aimar-Didier, 60-75.

8. Lenneberg, E.H. (1967). Biological Foundations of Language. New York, Wiley.

9. Leong, W.K. and Neo, E.G. (1986). The Bilingual Ability (English and Chinese) of A Sample of Primary Three Pupils. Paper present at the Fourth Asian Workshop on Child and Adolescent Devleopment in Singapore.

10. Leopold, W.F. (1939-1949). Speech Development of a Bilingual Child: A Linguist's Record. 4 Vols. Chicago: Evanston.

11. Marton, W. (1981). Contrastive analysis in the classroom. In Fisiak (ed), Contrastive Linguistics and the Language Teacher. Oxford: Pergamon.

12. Ronjat, J. (1913). Le developpement du langage observe chez un enfant bilingue. Paris.

13. Ruke-Dravina, V. (1967). Mehrs prachigkeit im Vorschulalter. Travaux de I'Institut de Phonetique de Lund, Fasc. V., Lund, Gleerup.

14. Segalowitz, N.S. (1981). Issues in the cross-sectional study of bilingual development. In H. Triandis, and A. Heron (eds), Handbook of Cross-cultural Psychology, Vol 4: Developmental Psychology. Boston: Allyn and Bacon, 55-92.

15. Skutnabb-Kangas, T. and Toukomaa, P. (1976). Teaching Migrant Children's Mother Tongue and Learning the Language of the Host Country in the Context of the Socio-cultural Situations of the Migrant Family. Tampere, University of Tampere, Dept of Sociology and Social Psychology, Tutkimuksia Research Report 15.

16. Titone, R. (1972). Le bilinguisme precoce. Bruxelles, Dessart.